

Product Texts

30% Carbon Reinforced, Heat Stabilized, Wear and Friction Modified

ISO 1043 (PA46+PTFE)-CF30

Stanyl® TW272B6 is a friction-modified high heat polyamide that offers excellent creep resistance, strength, stiffness and fatigue resistance especially at high temperatures in combination with cycle-time advantages and excellent flow. TW272B6 has an excellent track-record in gear applications.

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
^[C] Molding shrinkage, parallel	0.3 / *	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	0.6 / *	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	23500 / 14500	MPa	ISO 527
^[C] Stress at break	250 / 160	MPa	ISO 527
^[C] Strain at break	1.6 / 3.5	%	ISO 527
^[C] Charpy impact strength, +23°C	50 / 80	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	50 / 55	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	8 / 13	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	7 / 7	kJ/m ²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	295 / *	°C	ISO 11357-1/-3
^[C] Glass transition temperature, 10°C/min	75 / *	°C	ISO 11357-1/-2
^[C] Temp. of deflection under load, 1.80 MPa	290 / *	°C	ISO 75-1/-2
^[C] Coeff. of linear therm. expansion, parallel	25 / *	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	35 / *	E-6/K	ISO 11359-1/-2
^[C] Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	3.0 / *	mm	-
Yellow Card available	yes / *	-	-

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
^[C] Water absorption	8.1 / *	%	Sim. to ISO 62
^[C] Humidity absorption	2.2 / *	%	Sim. to ISO 62
^[C] Density	1360 / -	kg/m ³	ISO 1183

[C]: CAMPUS

Material specific properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Viscosity number	150 / *	cm ³ /g	ISO 307, 1157, 1628

[C]: CAMPUS

Characteristics

Processing

Injection Molding

Features

Tribologic Grade

Delivery form

Granules

Regional Availability

North America, Europe, Asia Pacific

Special Characteristics

Heat stabilized or stable to heat

Other text information

Injection molding

[Injection Molding Recommendations](#)

[Hot runner recommendations for molding high heat performance Engineering Materials](#)

[Steel recommendations for molds screws and barrels](#)

[Supporting document for Stanyl quality processing](#)

[Trouble shooting guideline for injection molding](#)